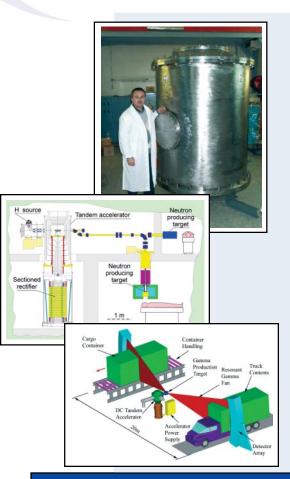




## Vacuum Insulated Tandem Accelerator System (VITA)



- New approach to produce high current DC ion beams with high energy resolution and stability
- VITA features industrially-proven DC accelerator technology for reliable high current operation
- System design maximizes ion beam transport, minimizes possibility of failure due to voltage breakdown
- VITA generates intense protons beam to produce:
  - Epithermal fast neurons for Boron Neutron Capture Therapy
  - Resonant photons for explosives detection
  - Positrons from the <sup>19</sup>F(p,αe<sup>+</sup>e<sup>-</sup>)<sup>16</sup>O reaction
  - Neutrons for imaging, other research applications
- Tandem accelerator permits transport of high current with high reliability in compact, low-cost system







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